BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Milwaukee Water Works, Milwaukee County, Wisconsin, for Authority to Increase Water Rates	**3720-WR-107**

SURREBUTTAL TESTIMONY OF BRUCE SCHMIDT
August 5, 2010

Q. Please state your name, occupation and business address.

A. My name is Bruce Schmidt. I am employed by the Public Service Commission of Wisconsin (Commission) as a Cost Engineer in the Division of Water, Compliance and Consumer Affairs. My business address is 610 N. Whitney Way, P.O. Box 7854, Madison, Wisconsin, 53707-7854.

Q. State your educational background and professional associations.

A. I graduated from the University of Wisconsin-Madison in 1975 with a Bachelor of Business Administration degree in finance and marketing and in 1985 with Bachelor of Science degree in Engineering Mechanics. I am a licensed Professional Engineer in the State of Wisconsin.

Q. State your work responsibilities.

A. Large Class AB utilities are required to have Continuing Property Records (CPR), which are a perpetual inventory that documents a description, location, year of installation, and original cost of a utility's assets and the date when an asset is replaced. My primary job responsibility is to validate the accuracy of a utility's CPR and to assist creating a CPR

for those utilities that grow to more than 4,000 customers, which is the criterion for becoming a Class AB utility.

Q. What is the significance of a CPR?

A. A CPR is the early version of today's asset management practice that organizes data to assist utility personnel to manage the utility's physical assets. A CPR is required by the Uniform System of Accounts (the accounting system prescribed by the Commission) and it is the basis of depreciation studies.

Q. What is the purpose of your testimony?

A. Patrick Planton, Michael Rau and James Wojcehowicz have suggested that Milwaukee Water Works (MWW) has unreasonably high levels of unaccounted-for water, resulting in higher costs of operation for all customers. They argue the wholesale class should not have to pay for these costs. I want to respond to the specific relief recommended by Mr. Planton that the costs to pump, treat and distribute unaccounted-for water above the 10 percent level be apportioned only to retail customers.

Q. Do you agree with the suggested relief?

A. No. Mr. Wojcehowitz acknowledges that MWW's level of unaccounted-for water is below the Commission standard of 15 percent. Mr. Planton provides a comparison with nine other Lake Michigan surface water utilities, eight of which have less unaccounted-for water than MWW. This notwithstanding, I believe it is inappropriate to set an action level at the 10 percent benchmark advocated by Mr. Planton when the current standard in Wis. Admin. Code § PSC 185.85(4) is 15 percent. It is non-debatable that MWW incurs cost to treat and supply water that ultimately is lost from its system. However, the fact that MWW meets the current Commission standard indicates to me that MWW

management is operating its water system within the acceptable boundaries for unaccounted-for water.

The 10 percent number referenced by Mr. Planton is not an AWWA standard or benchmark. It was a guideline that AWWA in the past set as an achievable goal for water utilities. AWWA is now promoting its water audit process as a way for water utilities to understand and deal with the water loss on their distribution systems and is moving away from a specific guideline such as 10 percent. This water audit process is very parallel to the Commission staff approach I reference below.

Q. Please continue.

A. High water loss or unaccounted-for water is an indicator of an ailing distribution system. The water loss statistics found in the Commission's annual reports are based on many estimated usage numbers, some of which are difficult to estimate accurately. I prefer to use the percentage of water sold to water pumped into the distribution system because these numbers are based on metered usage. The industry average in Wisconsin for water sold as a percentage of water pumped in 2009 was 86.13%. MWW sold 84.82% of the water pumped into its distributions system. MWW is slightly under the industry average but well above our criterion of 70 percent, where the Commission would take action asking a utility to explain its low efficiency numbers and communicate a plan for improvement.

The Commission does not allocate the cost associated with water loss to customer classes using a specific formula. Instead these costs are averaged across the customer base and shared by all customers, including wholesale customers.

At some level of unaccounted-for water or water loss there is merit to Mr. Planton's argument of fairness, but his recommended relief introduces complexity and uncertainty into the cost allocation process which I feel are unwarranted for a system that meets the baseline standard. Gathering water loss data, verifying its accuracy, allocating costs to appropriate customer classes and designing rates that reflect such cost allocation complicate the cost-of-service study and in this instance are not justifiable.

Q. How does the Commission's practice on setting depreciation rates apply to the concern of the wholesale communities relative to unaccounted-for water?

A. The Commission has established depreciation benchmarks that recommend a specific depreciation rate within a range for each plant account. Utilities are allowed to adjust their depreciation rates based on their experience and other qualifying criteria.

The current water main depreciation benchmark age range is from 85 to 100 years with a corresponding rate of 1.0 to 1.3 percent. The depreciation rate takes into account the net salvage of negative 10 percent, which accounts for some removal expenditures when replacing water main. Milwaukee is depreciating at an 85-year life.

The maximum estimated life for water main was about 150 years. In 2000 the Commission adjusted its estimate of average life range for water main based on evidence that water main installed post-World War II to the mid-1960's was failing and being replaced long before 100 years of main life.

The wholesale communities are concerned that MWW is not replacing mains quickly enough. They conclude that this is one reason why MWW has higher unaccounted-for water and increased costs of operation.

Q. Do you share that concern?

A. No. While comparing depreciable life against the actual rate of replacement has value, it can be misleading. It needs to be augmented with other data. Consider Exhibit 12.9, which is a comparison of main replacement ratios of MWW and the wholesale communities. This chart is based on each utility's theoretical main replacement based on 85-year main life less the average actual main replacement for 1997 – 2009, divided by the total feet of main for each utility. The smaller the ratio the closer the utility is to approaching a main turnover rate of 85 years.

The chart shows that MWW's turnover is faster than all the other wholesale utilities except Brown Deer. This chart is evidence that many utilities in the state and nation do not replace their main at a rate equal to their depreciation rate. The depreciation rate of each utility plant account should be based on replacement experience. However, age should not be the only or even primary factor for when a utility replaces main. The criteria for main replacement should be based on whether the main is failing (leaking or plugged), undersized, obsolete or unreliable because of valve failure, and when main replacement can be coordinated with road replacement. There is a lot of very old main in Wisconsin that still has a lot of remaining useful life because it was constructed well, installed using good materials and transports soft water.

Q. Does that conclude your surrebuttal testimony?

A. Yes.